AMENDMENT AND RESPONSE UNDER 37 CFR §
Serial Number: 09/961,024

Filing Date: September 21, 2001

Title: MULTIPLE CHANNEL INTERFACE FOR COMMUNICATIONS BETWEEN DEVICES

Assignee: Intel Corporation

# **REMARKS**

In response to the Office Action dated 28 June 2005, the applicants request reconsideration of the above-identified application in view of the following remarks. Claims 1-14, 16-18, 28-31, and 33-44 are pending in the application, and are rejected. Claim 14 will be amended, and new claim 49 will be added, upon entry of the present amendment. No new matter has been added.

#### Interview Summary

The applicants thank Examiner Patel for the telephone interview granted on Monday, October 24, 2005 between himself and the applicant's representative Mr. Mates (Reg. No. 35,271). The rejections of the pending claims were discussed, and no agreement was reached. The substance of this response was discussed during the interview.

### Claim Amendment and New Claim

Claim 14 will be amended, and new claim 49 will be added, upon entry of the present amendment. Claim 14 will be amended to be consistent with claim 1, and new claim 49 recites distinct subject matter.

### Rejections of Claims Under §103

Claims 1-14, 16-18, 28-31, 33-34, and 36-44 were rejected under 35 USC § 103(a) as being unpatentable over Baker (U.S. 6,333,938) in view of Earnest (U.S. 6,226,338). The applicants respectfully traverse.

Baker issued on December 25, 2001, which is after the filing date of the present application. The applicant does not admit that Baker is prior art, and reserves the right to swear behind Baker at a later date.

Earnest issued on May 1, 2001, which is less than one year before the filing date of the present application. The applicant does not admit that Earnest is prior art, and reserves the right to swear behind Earnest at a later date.

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The MPEP requires a suggestion and a reasonable expectation of success for a rejection under 35 USC § 103:

"To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations."

The suggestion or motivation to combine references and the reasonable expectation of success must both be found in the prior art.<sup>2</sup>

Baker relates to a PCI-interface device.<sup>3</sup> Baker shows in Figure 2 "the functional partitioning of PCI-interface ASIC 20."<sup>4</sup> Baker shows and describes the PCI-interface ASIC 20 in detail.<sup>5</sup>

Earnest relates to a "multiple-channel data communication buffer" that "includes a transmit first-in-first-out ("FIFO") circuit and a receive FIFO circuit." Earnest describes a receive FIFO 18 in detail, 7 and the Office Action proposes to add the "FULL" flag of the receive FIFO 18 of Earnest 8 to the PCI-interface ASIC 20 of Baker.

The Office Action has not shown evidence from the prior art of a suggestion to one skilled in the art to combine Baker and Earnest, and has not shown evidence of a reasonable expectation of success. The Office Action states:

"Baker does not specifically disclose a stop message channel coupled to the receive control block and adapted to send a stop message to a source when a receive FIFO reaches a stop threshold value....it would have been obvious to include the stop message channel, as disclosed by Earnest, in the system of Baker, since this would prevent the writing of data in FIFO that has no more room for data."

<sup>&</sup>lt;sup>1</sup> MPEP 2143.

<sup>&</sup>lt;sup>2</sup> MPEP 2143.

<sup>&</sup>lt;sup>3</sup> Baker, Abstract.

<sup>&</sup>lt;sup>4</sup> Baker, column 5, lines 66-67.

<sup>&</sup>lt;sup>5</sup> Baker, column 5, line 66 to column 13, line 15.

<sup>&</sup>lt;sup>6</sup> Earnest, Abstract.

<sup>&</sup>lt;sup>7</sup> Earnest, column 9, line 37, to column 11, line 55.

<sup>&</sup>lt;sup>8</sup> Earnest, column 11, lines 40-45.

<sup>&</sup>lt;sup>9</sup> Office Action, page 3.

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Similar statements are made in other parts of the rejection. The Office Action has not identified prior art as being the source of the above-quoted rationale for combining Baker and the buffer of Earnest as is required by MPEP 2143. The devices and methods described in Baker are specifically directed to extracting control information from packetized data in an IEEE 1394 standard or similar PCI interface device. The Office Action has not shown why a skilled person would be motivated to modify the system of Baker that complies with IEEE 1394. The Office Action has not shown evidence that the system of Baker that is compliant with IEEE 1394 is deficient in a way that can be remedied by the "FULL" flag of the receive FIFO 18 of Earnest.

The Office Action is also missing evidence from the prior art of a reasonable expectation of success of this combination of Baker and Earnest as required by MPEP 2143. The Office Action has not shown where the "FULL" flag of the receive FIFO 18 of Earnest is to be added to the system of Baker. Baker describes the PCI-interface ASIC 20 in detail as noted above, and the Office Action has not shown where in the detailed ASIC 20 of Baker the "FULL" flag of the receive FIFO 18 of Earnest is to be added. The PCI-interface ASIC 20 of Baker complies with IEEE 1394. The Office Action has not shown that the buffer of Earnest is compliant with IEEE 1394. The Office Action has not shown how the system of Baker that is compliant with IEEE 1394 can be modified by elements of Earnest and still maintain compliance with IEEE 1394.

#### The Office Action states:

"Official Notice is being taken that advantages of power management are well known in the art and it would have been obvious to include a power management unit in the system of Baker since this would allow power to be saved." 13

The applicants respectfully traverse this assertion of Official Notice. The Office Action used a similar rationale to reject claim 34.<sup>14</sup> Here, Official Notice is taken of supposed "advantages of power management." The Office Action appears to be taking Official Notice that a claimed feature is obvious, or is taking Official Notice of a motivation to modify Baker. In

<sup>&</sup>lt;sup>10</sup> Office Action, pages 6-7, 8, and 10.

<sup>11</sup> Baker, column 3, lines 5-11.

<sup>&</sup>lt;sup>12</sup> Baker, column 5, lines 27-35.

<sup>&</sup>lt;sup>13</sup> Office Action, page 4.

<sup>&</sup>lt;sup>14</sup> Office Action, page 7.

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either case, Official Notice cannot be used to establish obviousness, or a motivation to modify or combine references. Official Notice can only be used to establish facts not in the record, <sup>15</sup> and cannot be used by itself to establish obviousness. Obviousness can only be established by showing all of the elements in MPEP 2143 quoted above.

The MPEP states the following with regard to Official Notice:

"If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2)."<sup>16</sup>

Should the examiner continue to reject claims based on Official Notice, the applicants respectfully request that the examiner provide an affidavit or declaration as is required by the MPEP and 37 CFR 1.104(d)(2).

With regard to claim 34, no prior art has been cited in support of this rejection, and the applicants respectfully submit that claim 34 includes allowable subject matter.

The Office Action has not presented prior art showing a suggestion for, or a reasonable expectation of success of, this combination of Baker and Earnest as is required by MPEP 2143.

The applicants respectfully submit that a *prima facie* case of obviousness against claims 1-14, 16-18, 28-31, 33-34, and 36-44 has not been established in the Office Action, and that claims 1-14, 16-18, 28-31, 33-34, and 36-44 are in condition for allowance.

Claim 35 was rejected under 35 USC § 103(a) as being unpatentable over Baker, in view of Earnest and Holm et al. (U.S. 6,122,680, Holm). The applicants respectfully traverse.

Holm relates to a "multiple channel data communication buffer." The Office Action states:

"it would have been obvious to use the teachings of Holm in the system of Baker and Earnest, to use a bus with varying width since this would increase compatibility." 18

<sup>&</sup>lt;sup>15</sup> MPEP 2144.03

<sup>&</sup>lt;sup>16</sup> MPEP 2144.03

<sup>&</sup>lt;sup>17</sup> Holm, Abstract.

<sup>&</sup>lt;sup>18</sup> Office Action, page 11.

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The Office Action has not identified prior art as being the source of the above-quoted rationale for combining Baker, Earnest, and Holm as is required by MPEP 2143. The Office Action has not presented prior art showing a reasonable expectation of success of such an arrangement.

The applicants respectfully submit that a *prima facie* case of obviousness against claim 35 has not been established in the Office Action, and that claim 35 is in condition for allowance.

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## **CONCLUSION**

The applicants respectfully submit that all of the pending claims are in condition for allowance, and such action is earnestly solicited. The Examiner is invited to telephone the below-signed attorney at 612-373-6973 to discuss any questions which may remain with respect to the present application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

BRIAN R. MEARS ET AL.

By their Representatives, SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. Attorneys for Intel Corporation P.O. Box 2938 Minneapolis, Minnesota 55402 (612) 349-9592

Date 28 atober 2005

Robert E. Mates

Reg. No. 35,271

<u>CERTIFICATE UNDER 37 CFR 1.8:</u> The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 28th day of <u>October, 2005</u>.

Name

Signature